

## Reconciling Discordant Food Names, Food Forms, and Categories in the UK-FSA and US-PDP Pesticide Residue Datasets

A variety of food-nomenclature issues arise in the course of integrating the pesticide residue data reported by the UK-FSA into the DRI system. Two major clusters of issues had to be worked through: (1) changes in food names, categories, and food forms tested by the UK-FSA over time, and (2) differences in a particular year in the food names and food forms tested by the US-PDP in contrast to the generally comparable food names and food forms tested by the UK-FSA. Herein, we describe how the UK-FSA food nomenclature scheme was modified to harmonize food names and categories over time and across datasets for use within the DRI system.

### Standardizing UK-Food Standards Agency (FSA) Food and Sub-Food Names

The UK-FSA reports food-pesticide residue testing results by sample in Brand Name Annex reports (BNA). From 1999 through 2015, the UK-FSA released its detailed food-pesticide residue testing results in tabular formats in hard-copy, quarterly reports. For these years, the data were extracted from pdf files by Benbrook Consulting Services, and placed within a relational database for analyses within the DRI system. Beginning with the 2016 quarterly reports, the UK-FSA has made the raw data available in Excel spreadsheets, greatly facilitating movement of the data into a relational database like the one supporting applications of the DRI system.

Over the years the foods tested by the UK-FSA changed in many ways, creating multiple food-related nomenclature issues within the UK-FSA dataset. Herein we explain how we reconciled these differences in order to consistently classify foods within the DRI system over time.

#### Nomenclature Guidelines

- Many, but not all raw or fresh foods are expressed in the plural form. For example, apples, mangos and beans. Food names that encompass many varieties of a specific food are used in their singular form, such as, kale, spinach, and broccoli. This approach is adhered to in order to match, to the full extent possible, food names in the UK-FSA and US-PDP datasets.
- 'None' was replaced as 'Not Specified', in the Sub-Food field.
- The British English spelling of words is generally adopted.
- Ethnic foods with African, Indian or Hindi names are translated to British English.

Table 1 lists a sample of foods by their British English and American English names:

| Table 1. Translation of Food Names from British English to American English |                  |
|-----------------------------------------------------------------------------|------------------|
| British English                                                             | American English |
| Abergines                                                                   | Eggplant         |
| Courgettes                                                                  | Zucchini         |
| Crisps                                                                      | Potato Chips     |
| Chips                                                                       | French Fries     |
| Beetroot                                                                    | Beets            |
| Vine leaves                                                                 | Grape leaves     |

|                                                                                                                                                     |           |
|-----------------------------------------------------------------------------------------------------------------------------------------------------|-----------|
| Minced                                                                                                                                              | Burger    |
| Tinned                                                                                                                                              | Canned    |
| Maize                                                                                                                                               | Corn      |
| Soya                                                                                                                                                | Soy       |
| Rocket                                                                                                                                              | Arugula   |
| Langoustines                                                                                                                                        | Lobster   |
| Methi                                                                                                                                               | Fenugreek |
| Marrow, is a white-fleshed green-skinned gourd, which is eaten as a vegetable. Whereas, the American English marrow, is the substance inside bones. |           |

### Additional Steps to Standardize Food Nomenclature and Categories

- Foods that were reported by the UK-FSA as two, closely related foods, such as 'Peaches and Nectarines' are separated into their individual foods. Examples include:
  - Peaches and Nectarines,
  - Lemons and Limes,
  - Berries and small fruits,
  - Raisins, Currants and Sultananas,
  - Sunflower and Pumpkin seeds,
  - Sardines and Mackerel,
  - Herbal infusion and tea,
  - Goats milk and Ewes milk,
  - Ewe/Goats Cheese,
  - Frozen Fruits and Smoothies,
  - Oats and Rye
  - Trout and Salmon
- Several dozen foods that are tinned (canned) are reported as a separate food item, distinct from their raw or fresh food form.
- Foods that are processed are reported as a separate food from their raw, fresh, or unprocessed counterparts. Examples include:
  - Beef (processed)
  - Chicken (processed)
  - Pork (processed)
  - Pork and Beef (processed)
  - Potatoes (processed)
  - Tomatoes (processed)
  - Turkey (processed)
- Smoked Fish is reported as a separate food item, and in addition to "Fish."

### Reorganizing Foods and Sub-Foods

Foods and Sub-Foods as reported by the UK-FSA were not consistent from year to year (e.g., Savoury Breads are reported as a Sub-Food of Specialty Breads in some, but not all years). In general, the UK-FSA testing program is far more granular than the US-PDP, and reports results for multiple varieties of common foods like beans, cheeses, and tree-fruits (e.g., green apples, red apples, cooking apples). In

contrast, the US-PDP typically reports results for fresh apples, a food name that encompasses all different variety of apples in the raw or fresh form.

Several common foods tested by the UK-FSA are reorganized in the DRI system to maintain consistency and comparability, to the full extent possible, over time. The following major UK-FSA food categories have been used in the DRI system:

- Cheese
- Fish
- Beans with Pods
- Processed Meats
- Berries and Frozen Fruits

Tables (2-6) illustrate the reorganization of these five major foods. The "Brand Name Annex" (BNA) food and sub-food names are used in the UK-FSA dataset. The "Standardized" food and sub-food names are used to assure that roughly the same foods tested in the early 2000s by the UK-FSA are compared to the same foods tested in the 2010s. The column "Future Refinements" in Table 2 provides examples of the complex challenges that lie ahead in fully reconciling differences in food nomenclature in the UK-FSA and US-PDP datasets.

| Table 2. Cheese  |                  |              |                  |                                                                                                                                                                                                                                                  |
|------------------|------------------|--------------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Brand Name Annex |                  | Standardized |                  | Future Refinements                                                                                                                                                                                                                               |
| Food             | Sub-Food         | Food         | Sub-Food         |                                                                                                                                                                                                                                                  |
| Cheese           | Hard Cheese      | Cheese       | Hard Cheese      | All the hard cheeses (typically Cheddar, Edam and Gouda) were not separated out into Sub-Foods in 2014 and 2017. However, the variety of cheese is listed in the description field and could be separated out to be consistent with other years. |
| Cheese           | None             | Cheese       | Not Specified    | In 2006, the BNA reports did not separate out the variety of cheeses into a Sub-Food. However, the variety of cheese is listed in the description field and could be separated out to be consistent with other years.                            |
| Cheese           | Other            | Cheese       | Other            | Other cheeses (typically Mozzarella and Feta) were not separated out into Sub-Foods in 2010. However, the variety of cheese is listed in the description field and could be separated out to be consistent with other years.                     |
| Cheese           | Processed Cheese | Cheese       | Processed Cheese | 'Processed Cheese' are soft spreadable cheeses in 2016, that could be relabeled as Spreadable Cheese to be consistent with 2009 and 2013.                                                                                                        |
| Cheese           | Sheep            | Cheese       | Sheep            |                                                                                                                                                                                                                                                  |

|                 |                   |        |                   |                                                                                                                                                                                                                                                  |
|-----------------|-------------------|--------|-------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Cheese          | Soft Cheese       | Cheese | Soft Cheese       | All the soft cheeses were not separated out into Sub-Foods in 2009, 2012, 2015, 2016 and 2019. However, the variety of cheese is listed in the description field and could be separated out to be consistent with other years.                   |
| Cheese          | Spreadable cheese | Cheese | Spreadable cheese | 2016 only.                                                                                                                                                                                                                                       |
| Cheese (hard)   | Cheddar           | Cheese | Cheddar           |                                                                                                                                                                                                                                                  |
| Cheese (hard)   | Double Gloucester | Cheese | Double Gloucester |                                                                                                                                                                                                                                                  |
| Cheese (hard)   | Edam              | Cheese | Edam              |                                                                                                                                                                                                                                                  |
| Cheese (hard)   | Gouda             | Cheese | Gouda             |                                                                                                                                                                                                                                                  |
| Cheese (hard)   | Hard Cheese       | Cheese | Hard Cheese       | All the hard cheeses (typically Cheddar, Edam and Gouda) were not separated out into Sub-Foods in 2014 and 2017. However, the variety of cheese is listed in the description field and could be separated out to be consistent with other years. |
| Cheese (soft)   | Brie              | Cheese | Brie              |                                                                                                                                                                                                                                                  |
| Cheese (soft)   | Camembert         | Cheese | Camembert         |                                                                                                                                                                                                                                                  |
| Cheese (soft)   | Cottage Cheese    | Cheese | Cottage Cheese    |                                                                                                                                                                                                                                                  |
| Cheese (soft)   | Cream Cheese      | Cheese | Cream Cheese      |                                                                                                                                                                                                                                                  |
| Cheese (soft)   | Dolcelatte        | Cheese | Dolcelatte        |                                                                                                                                                                                                                                                  |
| Cheese (soft)   | Feta              | Cheese | Feta              |                                                                                                                                                                                                                                                  |
| Cheese (soft)   | Mozzarella        | Cheese | Mozzarella        |                                                                                                                                                                                                                                                  |
| Cheese (soft)   | Other             | Cheese | Other             |                                                                                                                                                                                                                                                  |
| Cheese (soft)   | Ricotta           | Cheese | Ricotta           |                                                                                                                                                                                                                                                  |
| Cheese (soft)   | Soft Cheese       | Cheese | Soft Cheese       | All the soft cheeses were not separated out into Sub-Foods in 2009, 2012 and 2016. However, the variety of cheese is listed in the description field and could be separated out to be consistent with other years.                               |
| Cheese Imported | None              | Cheese | Imported          | All imported cheeses are hard cheeses that were not separated out into Sub-Foods in 2002. However, the variety of cheese is listed in the description field and could be separated out to be consistent with other years.                        |

|                  |                   |        |                   |                                                                                                                                                                                                                    |
|------------------|-------------------|--------|-------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Cheese Mature    | None              | Cheese | Mature            | All Mature cheeses are aged Cheddar cheeses that were not separated out into Sub-Foods in 2004. However, these could be reassigned with a Sub-Food of Cheddar to be consistent with other years.                   |
| Cheese Mild      | None              | Cheese | Mild              | All Mild cheeses are typically the milder Cheddar cheeses that were not separated out into Sub-Foods in 2004. However, these could be reassigned with a Sub-Food of Cheddar, to be consistent with other years.    |
| Ewe/Goats Cheese | Ewes Cheese       | Cheese | Ewe               |                                                                                                                                                                                                                    |
| Ewe/Goats Cheese | Goats Cheese      | Cheese | Goat              |                                                                                                                                                                                                                    |
| Processed Cheese | Soft Cheese       | Cheese | Soft Cheese       | All the soft cheeses were not separated out into Sub-Foods in 2009, 2012 and 2016. However, the variety of cheese is listed in the description field and could be separated out to be consistent with other years. |
| Processed Cheese | Spreadable cheese | Cheese | Spreadable cheese | 2016 only.                                                                                                                                                                                                         |
| UK Cheese        | None              | Cheese | Cheddar           |                                                                                                                                                                                                                    |

All Fish samples have been reorganized by species, where Fish is the Food and the species is the Sub-Food.

| Table 3. Fish    |          |              |                    |                                                             |
|------------------|----------|--------------|--------------------|-------------------------------------------------------------|
| Brand Name Annex |          | Standardized |                    | Notes                                                       |
| Food             | Sub-Food | Food         | Sub-Food           |                                                             |
| Deep Water Fish  | None     | Fish         | Antarctic Ice Fish |                                                             |
| Deep Water Fish  | None     | Fish         | Cod                |                                                             |
| Deep Water Fish  | None     | Fish         | Coley              |                                                             |
| Deep Water Fish  | None     | Fish         | Haddock            |                                                             |
| Deep Water Fish  | None     | Fish         | Halibut            |                                                             |
| Deep Water Fish  | None     | Fish         | Plaice             |                                                             |
| Deep Water Fish  | None     | Fish         | Whiting            |                                                             |
| Farmed Fish      | Salmon   | Fish         | Salmon             | The variety field designates that these samples are Farmed. |
| Farmed Fish      | Trout    | Fish         | Trout              | The variety field designates that these samples are Farmed. |

|                    |               |      |               |                                    |
|--------------------|---------------|------|---------------|------------------------------------|
| Fish (fresh water) | Basa          | Fish | Basa          | Basa is the same as River Cobbler. |
| Fish (fresh water) | Carp          | Fish | Carp          |                                    |
| Fish (fresh water) | Puta          | Fish | Puta          |                                    |
| Fish (fresh water) | River Cobbler | Fish | River Cobbler |                                    |
| Fish (fresh water) | Salmon        | Fish | Salmon        |                                    |
| Fish (fresh water) | Tilapia       | Fish | Tilapia       |                                    |
| Fish (fresh water) | Trout         | Fish | Trout         |                                    |
| Fish (oily)        | Herring       | Fish | Herring       |                                    |
| Fish (oily)        | Mackerel      | Fish | Mackerel      |                                    |
| Fish (oily)        | Monkfish      | Fish | Monkfish      |                                    |
| Fish (oily)        | Pangasius     | Fish | Pangasius     |                                    |
| Fish (oily)        | Salmon        | Fish | Salmon        |                                    |
| Fish (oily)        | Sprats        | Fish | Sprats        |                                    |
| Fish (oily)        | Tilapia       | Fish | Tilapia       |                                    |
| Fish (oily)        | Trout         | Fish | Trout         |                                    |
| Fish (oily)        | Tuna          | Fish | Tuna          |                                    |
| Fish (oily)        | Whitebait     | Fish | Whitebait     |                                    |
| Fish (white)       | Basa          | Fish | Basa          | Basa is the same as River Cobbler. |
| Fish (white)       | Cod           | Fish | Cod           |                                    |
| Fish (white)       | Coley         | Fish | Coley         |                                    |
| Fish (white)       | Haddock       | Fish | Haddock       |                                    |
| Fish (white)       | Hake          | Fish | Hake          |                                    |
| Fish (white)       | Plaice        | Fish | Plaice        |                                    |
| Fish (white)       | Pollock       | Fish | Pollock       |                                    |
| Fish (white)       | Sea bass      | Fish | Sea bass      |                                    |
| Fish (white)       | Sea bream     | Fish | Sea bream     |                                    |
| Fish (white)       | Sole          | Fish | Sole          |                                    |
| Fish Predator      | Swordfish     | Fish | Swordfish     |                                    |
| Fish Predator      | Tuna          | Fish | Tuna          |                                    |
| Fresh Salmon       | None          | Fish | Salmon        |                                    |
| Oily Fish          | Herring       | Fish | Herring       |                                    |
| Oily fish          | Mackerel      | Fish | Mackerel      |                                    |
| Oily Fish          | None          | Fish | Herring       | * See footnote                     |
| Oily Fish          | None          | Fish | Mackerel      | * See footnote                     |
| Oily Fish          | None          | Fish | Not Specified |                                    |
| Oily fish          | Salmon        | Fish | Salmon        |                                    |
| Oily Fish          | Sprats        | Fish | Sprats        |                                    |
| Oily Fish          | Swordfish     | Fish | Swordfish     |                                    |
| Oily fish          | Trout         | Fish | Trout         |                                    |
| Oily Fish          | Tuna          | Fish | Tuna          |                                    |
| Oily Fish          | Whitebait     | Fish | Whitebait     |                                    |
| Salmon             | None          | Fish | Salmon        |                                    |

|          |               |      |                  |                |
|----------|---------------|------|------------------|----------------|
| Sea Fish | Cod           | Fish | Cod              |                |
| Sea Fish | Coley         | Fish | Coley            |                |
| Sea Fish | Dover sole    | Fish | Dover sole       |                |
| Sea Fish | Escolar       | Fish | Escolar          |                |
| Sea Fish | Haddock       | Fish | Haddock          |                |
| Sea Fish | Hake          | Fish | Hake             |                |
| Sea Fish | Herrings      | Fish | Herring          |                |
| Sea Fish | Lemon Sole    | Fish | Sole             |                |
| Sea Fish | Mackerel      | Fish | Mackerel         |                |
| Sea Fish | Monk fish     | Fish | Monkfish         |                |
| Sea Fish | None          | Fish | Cod              | * See footnote |
| Sea Fish | None          | Fish | Coley            | * See footnote |
| Sea Fish | None          | Fish | Dab              | * See footnote |
| Sea Fish | None          | Fish | Dover Sole       | * See footnote |
| Sea Fish | None          | Fish | Grey Mullet      | * See footnote |
| Sea Fish | None          | Fish | Guild Herd Bream | * See footnote |
| Sea Fish | None          | Fish | Haddock          | * See footnote |
| Sea Fish | None          | Fish | Halibut          | * See footnote |
| Sea Fish | None          | Fish | Marlin           | * See footnote |
| Sea Fish | None          | Fish | Monkfish         | * See footnote |
| Sea Fish | None          | Fish | Mullet           | * See footnote |
| Sea Fish | None          | Fish | Other White Fish | * See footnote |
| Sea Fish | None          | Fish | Plaice           | * See footnote |
| Sea Fish | None          | Fish | Red Snapper      | * See footnote |
| Sea Fish | None          | Fish | Red Tilapia      | * See footnote |
| Sea Fish | None          | Fish | Sea Bass         | * See footnote |
| Sea Fish | None          | Fish | Sea Bream        | * See footnote |
| Sea Fish | None          | Fish | Sole             | * See footnote |
| Sea Fish | None          | Fish | Swordfish        | * See footnote |
| Sea Fish | None          | Fish | Tilapia          | * See footnote |
| Sea Fish | None          | Fish | Tuna             | * See footnote |
| Sea Fish | None          | Fish | Turbot           | * See footnote |
| Sea Fish | None          | Fish | Whiting          | * See footnote |
| Sea Fish | None          | Fish | Yellow Snapper   | * See footnote |
| Sea Fish | Other         | Fish | Other White Fish |                |
| Sea Fish | Plaice        | Fish | Plaice           |                |
| Sea Fish | Pollack       | Fish | Pollock          |                |
| Sea Fish | Pollock       | Fish | Pollock          |                |
| Sea Fish | Red Snapper   | Fish | Red Snapper      |                |
| Sea Fish | River Cobbler | Fish | River Cobbler    |                |
| Sea Fish | Sea Bass      | Fish | Sea Bass         |                |
| Sea Fish | Sea Bream     | Fish | Sea Bream        |                |
| Sea Fish | Swordfish     | Fish | Swordfish        |                |

|                                                                                                               |               |      |                  |                                                    |
|---------------------------------------------------------------------------------------------------------------|---------------|------|------------------|----------------------------------------------------|
| Sea Fish                                                                                                      | Tilapia       | Fish | Tilapia          |                                                    |
| Sea Fish                                                                                                      | White Fish    | Fish | Other White Fish |                                                    |
| Trout                                                                                                         | None          | Fish | Trout            |                                                    |
| Trout and Salmon                                                                                              | Salmon        | Fish | Salmon           |                                                    |
| Trout and Salmon                                                                                              | Trout         | Fish | Trout            |                                                    |
| White Fish                                                                                                    | Cod           | Fish | Cod              |                                                    |
| White Fish                                                                                                    | Coley         | Fish | Coley            |                                                    |
| White Fish                                                                                                    | Haddock       | Fish | Haddock          |                                                    |
| White Fish                                                                                                    | Halibut       | Fish | Halibut          |                                                    |
| White Fish                                                                                                    | None          | Fish | Cod              | * See footnote                                     |
| White Fish                                                                                                    | None          | Fish | Coley            | * See footnote                                     |
| White Fish                                                                                                    | None          | Fish | Haddock          | * See footnote                                     |
| White Fish                                                                                                    | None          | Fish | Plaice           | * See footnote                                     |
| White Fish                                                                                                    | None          | Fish | Whiting          | * See footnote                                     |
| White Fish                                                                                                    | Other         | Fish | Basa             | * See footnote, Basa is the same as River Cobbler. |
| White Fish                                                                                                    | Other         | Fish | Hake             | * See footnote                                     |
| White Fish                                                                                                    | Other         | Fish | Other White Fish | * See footnote                                     |
| White Fish                                                                                                    | Other         | Fish | Pollock          | * See footnote                                     |
| White Fish                                                                                                    | Other         | Fish | River Cobbler    | * See footnote                                     |
| White Fish                                                                                                    | Other         | Fish | Sole             | * See footnote                                     |
| White Fish                                                                                                    | Plaice        | Fish | Plaice           |                                                    |
| White Fish                                                                                                    | River Cobbler | Fish | River Cobbler    |                                                    |
| White Fish                                                                                                    | Sea bass      | Fish | Sea Bass         |                                                    |
| White Fish                                                                                                    | Sea bream     | Fish | Sea Bream        |                                                    |
| White Fish                                                                                                    | Sole          | Fish | Sole             |                                                    |
| White Fish                                                                                                    | Whiting       | Fish | Whiting          |                                                    |
| Footnote                                                                                                      |               |      |                  |                                                    |
| * Species of fish is documented in the foods description of the BNA reports and is specified as the Sub-Food. |               |      |                  |                                                    |

Beans have been reorganized by variety. Each variety is categorized as a green bean or other bean. Green beans include varieties such as runner, French, dwarf, Bobi and string beans. Other beans include varieties such as fresh black-eyed beans, edamame, uri, hyacinth, chowli and mungra beans. Specialty beans are varieties that are not commonly grown in Europe and include types such as yard long beans, lima beans, guar, and valore beans. Since the country of origin is specified, this is a duplication of information and not necessary, and therefore, are separated out by Sub-Food as a green bean, dried bean, or other bean. Some beans, such as, black-eyed beans, are sampled as a dry bean or fresh bean and are split out as 'Beans (dried)' or 'Beans with Pods - Other', respectively. The individual variety of beans for each sample are retained in the Variety field in the database.

| Table 4. Beans   |          |              |          |       |
|------------------|----------|--------------|----------|-------|
| Brand Name Annex |          | Standardized |          | Notes |
| Food             | Sub-Food | Food         | Sub-Food |       |

|                         |                 |                    |              |                                  |
|-------------------------|-----------------|--------------------|--------------|----------------------------------|
| Broad Beans             | Fresh           | Beans with Pods    | Green Beans  | Fresh is retained in Form field  |
| Broad Beans             | Frozen          | Beans with Pods    | Green Beans  | Frozen is retained in Form field |
| Green Beans             | Green Beans     | Beans with Pods    | Green Beans  |                                  |
| Green Beans             | None            | Beans with Pods    | Green Beans  |                                  |
| Green Beans             | Specialty Beans | Beans with Pods    | Green Beans  |                                  |
| Green Beans             | Specialty Beans | Beans with Pods    | Other Bean   |                                  |
| Pulses                  | Beans           | Beans without Pods | Dried Beans  |                                  |
| Pulses                  | None            | Beans (tinned)     | Baked Beans  |                                  |
| Pulses                  | None            | Beans (tinned)     | Butter Beans |                                  |
| Pulses                  | None            | Beans (tinned)     | Cannellini   |                                  |
| Pulses                  | None            | Beans (tinned)     | Haricot      |                                  |
| Pulses                  | None            | Beans (tinned)     | Kidney       |                                  |
| Pulses                  | None            | Beans (tinned)     | Pinto        |                                  |
| Pulses                  | None            | Beans without Pods | Dried Beans  |                                  |
| Specialty Beans (dried) | None            | Beans without Pods | Dried Beans  |                                  |
| Specialty Beans         | None            | Beans with Pods    | Green Beans  |                                  |
| Specialty Beans         | None            | Beans with Pods    | Other Bean   |                                  |
| Specialty Beans (dried) | None            | Beans without Pods | Dried Beans  |                                  |

Processed meats are reorganized by the primary animal source. They include pork, turkey, chicken and beef.

| Table 5. Processed Meats         |                |                     |                              |
|----------------------------------|----------------|---------------------|------------------------------|
| Brand Name Annex                 |                | Standardized        |                              |
| Food                             | Sub-Food       | Food                | Sub-Food                     |
| Bacon                            | Bacon          | Pork (processed)    | Bacon                        |
| Bacon                            | Gammon         | Pork (processed)    | Gammon                       |
| Bacon                            | None           | Pork (processed)    | Bacon                        |
| Breaded Turkey Products          | None           | Turkey (processed)  | Breaded Turkey Products      |
| Chicken (processed)              | None           | Chicken (processed) | Not Specified                |
| Chicken Nuggets/ Breaded Chicken | None           | Chicken (processed) | Nuggets/Breaded Chicken      |
| Chinese Canned Pork Products     | None           | Pork (processed)    | Chinese Canned Pork Products |
| Cooked and Cured Pork Meats      | Chorizo        | Pork (processed)    | Chorizo                      |
| Cooked and Cured Pork Meats      | Garlic Sausage | Pork (processed)    | Sausage                      |
| Cooked and Cured Pork Meats      | Ham            | Pork (processed)    | Ham                          |
| Cooked and Cured Pork Meats      | Other          | Pork (processed)    | Other                        |
| Cooked and Cured Pork Meats      | Roast Pork     | Pork (processed)    | Roast Pork                   |
| Cooked and Cured Pork Meats      | Salami         | Pork (processed)    | Salami                       |
| Cooked Meat                      | Beef           | Beef (processed)    | Cooked Meat                  |

|                            |                |                           |                         |
|----------------------------|----------------|---------------------------|-------------------------|
| Cooked Meat                | Chicken        | Chicken (processed)       | Cooked Meat             |
| Cooked Meat                | Ham            | Pork (processed)          | Ham                     |
| Cooked Meat                | Pork           | Pork (processed)          | Roast Pork              |
| Cooked Meat                | Turkey         | Turkey (processed)        | Cooked Meat             |
| Cooked Meats               | Beef           | Beef (processed)          | Cooked Meat             |
| Cooked Meats               | Chicken        | Chicken (processed)       | Cooked Meat             |
| Cooked Meats               | Ham            | Pork (processed)          | Ham                     |
| Cooked Meats               | Pork           | Pork (processed)          | Roast Pork              |
| Cooked Meats               | Turkey         | Turkey (processed)        | Cooked Meat             |
| Cooked or Cured Pork Meats | Chorizo        | Pork (processed)          | Chorizo                 |
| Cooked or Cured Pork Meats | Garlic Sausage | Pork (processed)          | Sausage                 |
| Cooked or Cured Pork Meats | Ham            | Pork (processed)          | Ham                     |
| Cooked or Cured Pork Meats | Other          | Pork (processed)          | Other                   |
| Cooked or Cured Pork Meats | Roast Pork     | Pork (processed)          | Roast Pork              |
| Cooked or Cured Pork Meats | Salami         | Pork (processed)          | Salami                  |
| Ham                        | None           | Pork (processed)          | Ham                     |
| Pork and Gammon            | Gammon         | Pork (processed)          | Gammon                  |
| Pork Products (Processed)  | Bacon          | Pork (processed)          | Bacon                   |
| Pork Products (Processed)  | Gammon         | Pork (processed)          | Gammon                  |
| Pork Products (processed)  | Meatballs      | Pork (processed)          | Meatballs               |
| Pork Products (processed)  | Sausage Meat   | Pork (processed)          | Sausage                 |
| Pork Products (Processed)  | Sausages       | Pork (processed)          | Sausage                 |
| Poultry (processed)        | Chicken        | Chicken (processed)       | Not Specified           |
| Poultry (Processed)        | Chicken        | Chicken (processed)       | Not Specified           |
| Poultry (processed)        | Turkey         | Turkey (processed)        | Breaded Turkey Products |
| Poultry (Processed)        | Turkey         | Turkey (processed)        | Breaded Turkey Products |
| Processed Pork             | Bacon          | Pork (processed)          | Bacon                   |
| Processed Pork             | Gammon         | Pork (processed)          | Gammon                  |
| Processed Pork             | Sausage Meat   | Pork (processed)          | Sausage                 |
| Processed Pork             | Sausages       | Pork (processed)          | Sausage                 |
| Sausages                   | Beef           | Beef (processed)          | Sausage                 |
| Sausages                   | None           | Beef (processed)          | Sausage                 |
| Sausages                   | None           | Chicken (processed)       | Sausage                 |
| Sausages                   | None           | Pork (processed)          | Sausage                 |
| Sausages                   | None           | Pork and Beef (processed) | Sausage                 |
| Sausages                   | Pork           | Pork (processed)          | Sausage                 |
| Sausages                   | Pork and Beef  | Pork and Beef (processed) | Sausage                 |

All fresh and frozen berries are reorganized as one food, with the individual berry as the Sub-Food. Fresh and frozen berries are kept separate to correspond with the BNA reports. Strawberries are listed as a

separate Food from berries with respect to the original BNA reports, and to correspond with US-PDP data.

| <b>Table 6. Berries and Frozen Fruits</b> |                      |                     |                       |
|-------------------------------------------|----------------------|---------------------|-----------------------|
| <b>Brand Name Annex</b>                   |                      | <b>Standardized</b> |                       |
| <b>Food</b>                               | <b>Sub-Food</b>      | <b>Food</b>         | <b>Sub-Food</b>       |
| Berries                                   | Fresh: Blackberries  | Berries             | Blackberries (fresh)  |
| Berries                                   | Fresh: Blackberries  | Berries             | Blackberries (fresh)  |
| Berries                                   | Fresh: Blueberries   | Berries             | Blueberries (fresh)   |
| Berries                                   | Fresh: Blueberries   | Berries             | Blueberries (fresh)   |
| Berries                                   | Fresh: Gooseberries  | Berries             | Gooseberries (fresh)  |
| Berries                                   | Frozen: Blackberries | Berries             | Blackberries (frozen) |
| Berries                                   | Frozen: Blackberries | Berries             | Blackberries (frozen) |
| Berries                                   | Frozen: Blueberries  | Berries             | Blueberries (frozen)  |
| Berries                                   | Frozen: Blueberries  | Berries             | Blueberries (frozen)  |
| Berries and Small Fruits                  | Blackberries         | Berries             | Blackberries          |
| Berries and Small Fruits                  | Blackcurrants        | Berries             | Blackcurrants         |
| Berries and Small Fruits                  | Blueberries          | Berries             | Blueberries           |
| Berries and Small Fruits                  | Gooseberries         | Berries             | Gooseberries          |
| Berries and Small Fruits                  | Redcurrants          | Berries             | Redcurrants           |
| Blackberries                              | None                 | Berries             | Blackberries          |
| Blueberries                               | None                 | Berries             | Blueberries           |
| Currants                                  | Black Currants       | Berries             | Blackcurrants         |
| Currants                                  | Red Currants         | Berries             | Redcurrants           |
| Frozen Fruits                             | Blackberries         | Berries             | Blackberries (frozen) |
| Frozen Fruits                             | Smoothie Mixes       | Frozen Mixed Fruits | Smoothie Mixes        |
| Frozen Fruits and Smoothie Mixes          | Frozen Blackberries  | Berries             | Blackberries (frozen) |
| Frozen Fruits and Smoothie Mixes          | Frozen Blueberries   | Berries             | Blueberries (frozen)  |
| Frozen Fruits and Smoothie Mixes          | Frozen Raspberries   | Berries             | Raspberries (frozen)  |
| Frozen Fruits and Smoothie Mixes          | Frozen Strawberries  | Strawberries        | Frozen                |
| Prepfruit                                 | Blueberry            | Berries             | Blueberry (prepared)  |
| Raspberries                               | Fresh                | Berries             | Raspberries (fresh)   |
| Raspberries                               | Frozen               | Berries             | Raspberries (frozen)  |
| Raspberries                               | None                 | Berries             | Raspberries           |
| Raspberries and Blackberries              | Blackberries (fresh) | Berries             | Blackberries (fresh)  |
| Raspberries and Blackberries              | Raspberries (fresh)  | Berries             | Raspberries (fresh)   |
| Raspberries and Blackberries              | Raspberries (frozen) | Berries             | Raspberries (frozen)  |
| Raspberry                                 | None                 | Berries             | Raspberries           |
| Raspberry                                 | Not Specified        | Berries             | Raspberries           |
| Specialty Fruit                           | Gooseberry           | Berries             | Gooseberries          |

|                |              |         |              |
|----------------|--------------|---------|--------------|
| Summer Berries | Blackberries | Berries | Blackberries |
| Summer Berries | Blueberries  | Berries | Blueberries  |
| Summer Berries | Gooseberries | Berries | Gooseberries |
| Summer Berries | Raspberries  | Berries | Raspberries  |
| Summer Berries | Red Currants | Berries | Redcurrants  |